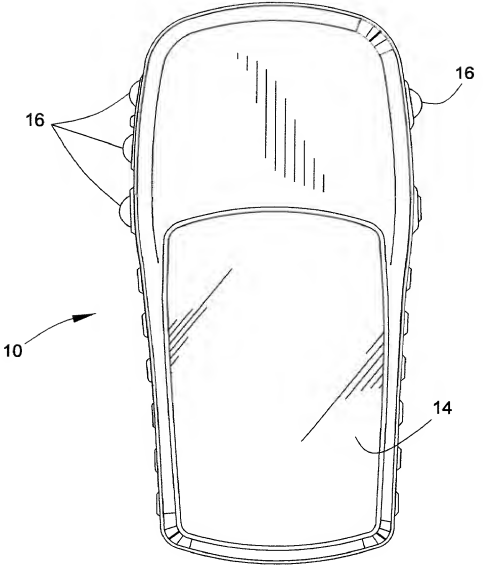


Fig. 1.

08891002 "08270A

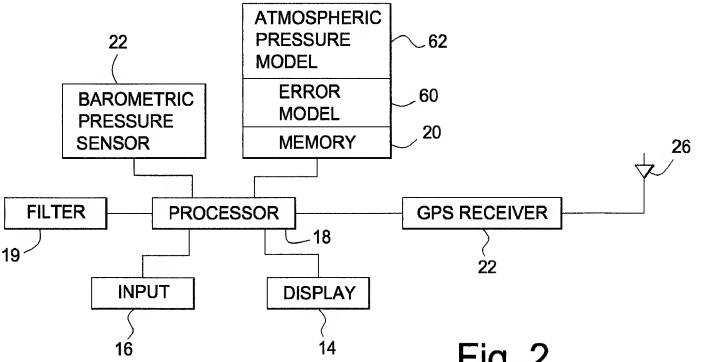
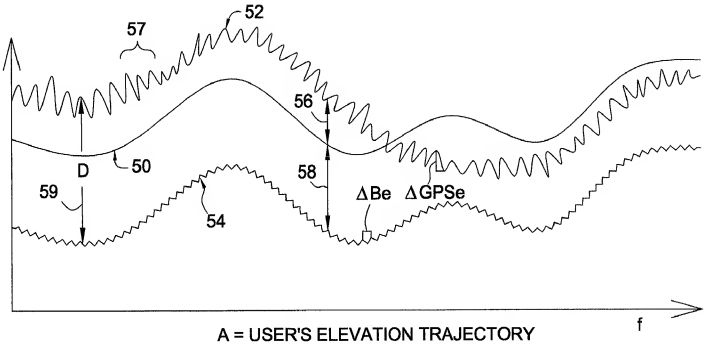


Fig. 2.

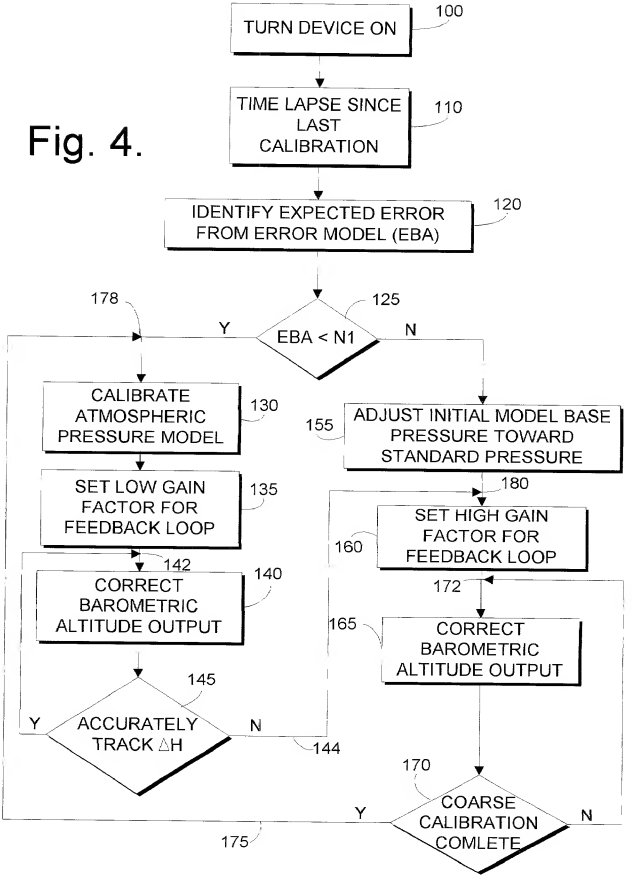
TOZ280 2001880



A = USER'S ELEVATION TRAJECTORY
B = GPS ELEVATION READING
C = BAROMETRIC ALTIMETER READING

Fig. 3.

Fig. 4.


TURN DEVICE ON
100
TIME LAPSE SINCE LAST CALIBRATION
110
IDENTIFY EXPECTED ERROR FROM ERROR MODEL (EBA)
120
178
125
Y
EBA < N1
N
CALIBRATE ATMOSPHERIC PRESSURE MODEL
130
155
ADJUST INITIAL MODEL BASE PRESSURE TOWARD STANDARD PRESSURE
SET LOW GAIN FACTOR FOR FEEDBACK LOOP
135
180
SET HIGH GAIN FACTOR FOR FEEDBACK LOOP
160
142
CORRECT BAROMETRIC ALTITUDE OUTPUT
140
172
165
CORRECT BAROMETRIC ALTITUDE OUTPUT
145
Y
ACCURATELY TRACK ΔH
N
144
170
Y
COARSE CALIBRATION COMLETE
N
175

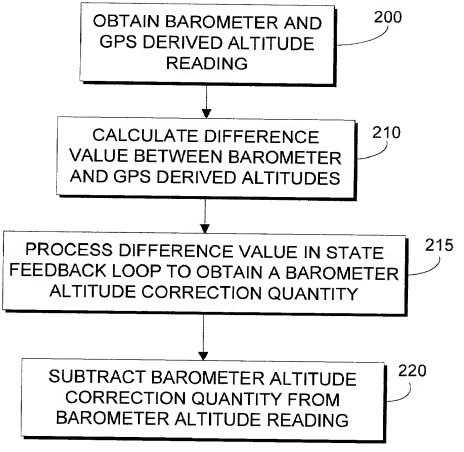

OBTAIN BAROMETER AND GPS DERIVED ALTITUDE READING
200
CALCULATE DIFFERENCE VALUE BETWEEN BAROMETER AND GPS DERIVED ALTITUDES
210
PROCESS DIFFERENCE VALUE IN STATE FEEDBACK LOOP TO OBTAIN A BAROMETER ALTITUDE CORRECTION QUANTITY
215
SUBTRACT BAROMETER ALTITUDE CORRECTION QUANTITY FROM BAROMETER ALTITUDE READING
220

Fig. 5.